SHILIN, D.M.; SHTAL', N.V.

Upper Jurassic instrusions of the Aginskaya structural zone in Transbaikalia. Trudy VSEGEI 81:169-181 '63 (MIRA 17:7)

NEKHOROSHEV, V.P.; KHOREVA, B.Ya.; KHISAMITDINOV, M.G.; BOGDANOV, K.G.; SHILIN, D.M.; LYAKHNITSKAYA, I.V.; SOKOLOV, R.N.

Nikolai Nikolaevich Kurek,-1963; [illegible] obituary. Zap. Vses. min. ob-va 93 no. 2:246-247 '64. (MIRA 17:6)

SHILIN, E

Wages of collective farm builders. Sel'.stroi. 11[i.e.12] no.1:24 Ja '57. (MLRA 10:3)

1. Inzhener-inspektor Stavropol'skogo krayevogo upravleniya po stroitel'stvu v kolkhozah.
(Wages) (Construction workers)

TSEKOV, V., kand.tekhn.nauk; SHILIN, E.

Insulation components of AST-T plastic. Zhil.-kom. khoz. 11 no.3:24-25 Mr '61. (MIRA 14:3)

1. Glavnyy inzhener Leninskogo tramvaynogo depo, g.Khar'kov (for Shilin).
(Electric insulators and insulation)

TSEKOV, V.I.; SHILIN, E.G.

Use of capron in the repair of streetcar mechanical equipment.
Plast.massy no.6:60-62 '61. (MIRA 14:5)
(Nylon) (Streetcars)

TSEKOV, V., kand. tekhn. nauk; SHILIN, E., inzh.

Streetcar parts made of nylon. Zhil.-kom. khoz. 11 no.11:24 N '61. (MIRA 16:7)

(Kharkov—Streetcars—Equipment and supplies)
(Nylon)

SHILIN, G.

Freezing by-products without preliminary refrigeration. Mias. ind. SSSR 29 no.2:50-51 '58. (MIRA 11:5)

1.Shkola fabrichno-zavodskogo uchenichestva Vinnitskogo myasokombinata.

(Meat, Frozen)

SHILIN, G.; BELOUSOV, F.

Experience in sterilizing canned meat under pressure. Mias. ind. SSSR 32 no.3:28-29 '61. (MIRA 14:7)

1. Vinnitskiy myasokombinat.
(Meat, Canned—Sterilization)

IVANOV, Vladlen Vasil'yevich, kand. tekhn. nauk, dotsent; SHTEIN, Gennadiy Fedorovich, aspirant

Thermal calculation of the magnetizing winding of an air-cooled betatron. Izv. vys. ucheb. zav.; elektromekh. 7 no.8:1028-1031 '64. (MIRA 17:10)

1. Kafedra teoreticheskoy i obshchey teplotekhniki Tomskogo politekhnicheskogo instituta.

ACC NR: AR6013631 SOURCE CODE: UR/0058/65/000/010/A036/A036

AUTHOR: Ivanov, V. V.; Shilin, G. F.

TITLE: Aerodynamic analysis of the cooling system of a betatron magnet

SOURCE: Ref. zh. Fizika, Abs. 10A337

REF SOURCE: Izv. Tomskogo politekhn. in-ta, v. 137, 1965, 45-48

TOPIC TAGS: betatron, particle accelerator component, structure cooling , temperature distribution

TRANSLATION: The temperature distribution of the air along the cooling channel of a betatron magnet is calculated. This result is used to derive a formula for the pressure difference between the input and output considering nonisothermal flow. V. Kanynnikov.

SUB CODE: 20

Card 1/1

SHILIN, G. R.

SHILIN, G. R. -- "Influence of X-Rays on the Total Amount and Fractions of Protein in the Blood." Acad Sci Latvian SSR, Inst of Experimental Medicine, 1953. In Latvian (Dissertation for the Degree of Candidate of Medical Sciences)

SO: Izvestiya Ak. Nauk Latviyskoy SSR, No. 9, Sept., 1955

SHILIN, I.

[Number of qualified personnel in factories is increasing] Na zavode rastut kvalifitsirovannye kadry [Moskva] Profizdat, 1953. 47 p. (MLRA 6:12)

1. Zamestitel' predsedatelia zavkoma Lyublinskogo liteyno-mekhanicheskogo zavoda imeni L.M.Kaganovicha.
(Technical education)

SOV/123-59-12-46340

Translation from: Referativnyy zhurnal. Mashinostroyeniye, 1959, Nr 12, p 67 (USSR)

AUTHORS: Shilin, I., Sibirev, P.

TITLE: The Hot Upsetting of Machine Parts on Eccentric Presses With Electric Contact Heating

PERIODICAL: Prom.-ekon. byul. Sovnarkhoz Kuybyshevsk. ekon. adm. r-na, 1958, Nr 1, pp 29-30

ABSTRACT: The author suggests a method of upsetting blanks for fittings and fasteners on a 50-ton eccentric press in dies with electric contact preheating in butt welding machines. The upsetting output would amount to 200 - 300 pieces/hour. Upset machine parts possess an increased strength in comparison with the turned ones. The labor-consumption of the manufacturing process is lowered and a considerable saving of metal is attained. 3 figures.

I.N.N.

Card 1/1

SHILIN, I. G.; KOSENKO, T. A.

Complex solving of the problem of the distribution and production organization of butter and cheese industry enterprises. Izv. vys. ucheb. zav.; pishch. tekh. no.5:3-8 '62. (MIRA 15:10)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova i Moskovskiy institut narodnogo khozyaystva imeni Plekhanova.

(Industrial organization)

DUDKIN, L.M., red.; SHILIN, I.G., red.; YERMAKOV, M.S., tekhn. red.

[Problems of the optimal planning, projection and administration of production] Problemy optimal'nogo planirovaniia, proektirovaniia i upravleniia proizvodstvom; trudy teoreticheskoi konferentsii, sostoiavsheisia na ekonomicheskom fakul'tete MGU v marte 1962. Moskva, Izd-vo Mosk. univ., 1963. 546 p. (MIRA 16:9)

1. Teoreticheskaya konferentsiya "Problemy optimal'nogo planirovaniya, proyektirovaniya i upravleniya proizvodstvom," 1962. 2. Moskovskiy Gosudarstvennyy universitet (for Shilin, Dudkin). (Russia—Economic policy)

SHILIN, I. V.

78-1-40/43

AUTHORS: Povitskiy, N. S. , Solovkin, A. S. , Shilin, I. V.

TITLE: Extraction of Perchloric Acid With Tributyl Phosphate (TBPh) (Ekstraktsiya khlornoy kisloty tributilfosfatom)

PERIODICAL: Zhurnal Neorganicheskoy Khimii, 1958, Vol. 3, Nr 1, pp.222-224 (USSR)

ABSTRACT: The second author proved (reference 1) that with zirconium--extraction from perchloric acid containing solutions $HClO_4$ passes over in analyzable quantities. Their complex-formation with TBPh was worth investigating in view of their application for the maintenance of a constant ionic density. Perchloric acid was extracted from water by TBPh solution in benzene or petroleum. The phases were equal with all tests (23 ml). The equilibrium was attained within 10 to 15 minutes. In tests on the distribution of perchloric acid between water and 3,67 mol TBPh it was found that with increasing concentration of $HClO_4$ in the initial solution the quantity passing over into $TBPh^4$ increases also (table 1). With the mixture of the phases

Card 1/3

Extraction of Perchloric Acid With Tributyl Phosphate (TBPh)

an exothermic reaction takes place which is most intensely in the case of stronger acid solutions (table 1, test 6). It was tried to compute the equilibrium constant of the reaction of complex-formation of $HClO_4$ with TBPh (K_1), from the obtained results. It is shown in table 1 that K_1 is variable within vast limits. This is apparently achieved by the ionic density of the solution which fluctuates under the influence of the changes of concentration of the acid. With a constant ionic density K_1 remains sufficiently constant $(6,7 \pm 0,5).10^{-2}$. In this case the equilibrium constant of the reaction of complex formation of HNO_3 with TBPh(K_2) amounts to $0,16 \pm 0,01$ (table 2). The K_2-value is neither changed by using solutions which are diluted by benzene or petroleum, if the ionic density of the solution is preserved (~ 3) (table 3, 4). The value of K_2 increases with diluting the TBPh-solutions up to $0,22 \pm 0,02$ (little different from references 3 to 6). It is noticeable that the TBPh-dilution with petroleum lead to the formation of a third phase after the extraction if the HNO_3-content in the initial solution was small, compared with that of $HClO_4$ (table 4, test 1). The light organic phase ($d^{25°} = 0,750$) is formed of almost pure petroleum with only a small admixture

78-1-40/43

Extraction of Perchloric Acid With Tributyl Phosphate (TBPh)

of TBPh and contains no $HClO_4$. The heavy organic phase ($d^{25°}$ = = 1,001) is a solution of $HClO_4$.TBPh in TBPh. The third phase appears also with the mixtures of 0,49 n $HClO_4$ with 0,25 mol TBPh in petroleum. The heavy organic phase dissolves in petroleum after $HClO_4$ was re-extracted in water. It is not formed with the TBPh-dilution with benzene. There are 4 tables, and 7 references, 4 of which are Slavic.

SUBMITTED: May 22, 1957

AVAILABLE: Library of Congress

Card 3/3

SHILIN, I. V.

78-1-41/43

AUTHORS: Shevchenko, V. B. , Shilin, I. V. , Solovkin, A. S.

TITLE: Extraction of Perchloric Acid and Uranyl Perchlorate With Tributyl Phosphate (Ekstraktsiya khlornoy kisloty i perkhlorata uranila tributilfosfatom)

PERIODICAL: Zhurnal Neorganicheskoy Khimii, 1958, Vol. 3, Nr 1, pp.225-230 (USSR)

ABSTRACT: It is generally maintained in literature that the perchlorate--ion has no inclination to form complexes with the elements of the actinide series (reference 1). Perchloric acid and its soluble salts are therefore often used for the maintenance of the ionic density when the investigation of the nature of the compounds existing in aqueous solutions is required (e.g. extraction in tributyl phosphate). The transition of $HClO_4$ into the organic phase is usually neglected. The authors proved however (reference 4) that the value of the equilibrium-constant of the reaction of $HClO_4$ with TBPh (K_1) can be compared with that of HNO_3 with TBPh. The investigation of

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Extraction of Perchloric Acid and Uranyl Perchlorate With Tributyl Phosphate

the distribution of $HClO_4$ between its aqueous solution and the TBPh is continued in the present paper. Experimental part. The methods for $HClO_4$ were previously described (reference 4). The tests were carried out with a constant ionic strength of the aqueous phase (0,1 to 3). The solutions were produced in such a way that - after the extraction of the uranyl perchlorate - the $HClO_4$-content in the aqueous phase is approximately constant and equal to the prescribed ionic density. The TBPh-concentration being in equilibrium in the organic phase $(TBPh)_o$ was determined by taking account of the changes of the phase-volumina. Since a number of conditions of the uranium-extraction from perchloric acid solutions which were not described previously, was clarified meanwhile, the original aim of the paper was modified and the tests were continued for clarifying the following questions: 1) The influence of μ on $K_{pUO_2(ClO_4)_2}$ between water and TBPh. 2) Influence of the concentration of the same compound on TBPh with constant ionic density of the aqueous phase. 3) Influence of the salting out on $K_{pUO_2(ClO_4)}$ ($LiClO_4$ and $NaClO_4$). 4) Influence of the diluters which are added to TBPh on

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Extraction of Perchloric Acid and Uranyl Perchlorate With Tributyl Phosphate

8 of which are Slavic.

SUBMITTED: May 22, 1957

AVAILABLE: Library of Congress

Card 4/4

SOV/78-3-8-38/48

AUTHORS: Shevchenko. V. B., Solovkin, A. S., Shilin, I. V.

TITLE: About the Extraction of the Uranyl Perchlorate by Means of Tributyl Phosphate (K ekstraktsii perkhlorata uranila tributilfosfatom)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1958, Vol. 3, Nr. 8, pp. 1965-1967 (USSR)

ABSTRACT: The distribution of uranyl perchlorate between water and a solution of 1,2 mol. of tributyl phosphate (TBP) in CCl_4 was studied as a function of the concentration of the salt in aqueous solution (Table 1). It was shown that $K_{PuO_2(ClO_4)_2}$ increases with a rise of the uranyl concentration in the solution. When uranyl perchlorate is extracted by means of tributyl phosphate an increase of the water contents occurs in the organic phase. In virtue of the experiments it is assumed that uranyl perchlorate is extracted by tributyl phosphate in the form of the following compound: $UO_2(ClO_4)_2 \cdot 2H_2O \cdot 2TBP$.

Card 1/2 There are 1 figure, 1 table, and 4 references, 2 of which are

SOV/78-3-8-38/48

About the Extraction of the Uranyl Perchlorate by Means of Tributyl Phosphate

Soviet.

SUBMITTED: February 28, 1958

Card 2/2

SHILIN, I.V.

7

SOV/78-3-9-16/38

AUTHORS: Shevchenko, V. B., Povitskiy, N. S., Solovkin, A. S., Shilin, I. V., Lunichkina, K. P., Yavetkova, Z. N.

TITLE: The Extraction of Nitric Acid With Tributyl Phosphate (Ekstraktsiya azotnoy kisloty v tributilfosfat)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1958, Vol 3, Nr 9, pp 2109-2112 (USSR)

ABSTRACT: The distribution of nitric acid between the aqueous and the organic phase containing tributyl phosphate in dependence on the aqueous phase and the nature of the solvent of tributyl phosphate was investigated. From the results may be concluded that K_p considerably depends on the nature of the solvents of tributyl phosphate. The influence of the nature of the solvents on the distribution of nitric acid between water and tributyl phosphate was investigated in the case of an ionic strength of the solution of 1, 0,5 and 3. The maximum value of K_p in nitric acid solution with the ionic strength of 3 is obtained if toluene is used as solvent for tributyl phosphate. The change of K_p by the nature of the solvent in the case of an ionic strength of 3 is to be divided as follows: toluene, benzene, kerosene, CCl_2F-CCl_2F, CCl_4. The following variation of the above sequence takes place if the ionic strength is reduced to 1: kerosene, toluene, benzene, CCl_2F-CCl_2F, CCl_4. Comparative investigations of the extractions in $HClO_4$ and HNO_3 solutions showed that the complex $HClO_4$.TBPh is to a greater extent polar than the complex HNO_3.TBPh. There are 2 figures, 1 table, and 3 references, 4 of which are Soviet.

Card 1/2

SUBMITTED: August 3, 1957

Card 2/2

SHEVCHENKO, V.B.; SOLOVKIN, A.S.; SHILIN, I.V.; KIRILLOV, L.M.; RODIONOV, A.V.; BALANDINA, V.V.

Effect of the nature of the diluent on the extraction of uranyl nitrate by tributylphosphate. Radiokhimiia 1 no.3:257-269 '59. (MIRA 12:10)

(Uranyl nitrate) (Butyl phosphate)

5(4) SOV/78-4-6-40/44

AUTHORS: Solovkin, A. S., Povitskiy, N. S., Shilin, I. V.

TITLE: On the Influence of the Nitrates of Barium, Nickel, Cobalt, and Copper on the Extraction of Nitric Acid in Tributyl Phosphate (TBP) (O vliyanii nitratov bariya, nikelya, kobal'ta i medi na ekstraktsiyu azotnoy kisloty v tributilfosfat (TBP))

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 6, pp 1454 - 1456 (USSR)

ABSTRACT: The distribution of nitric acid between the aqueous and inorganic phase of the solution of TBP in kerosene was investigated in the presence of barium-, nickel-, cobalt-, and copper nitrates in the case of an ionic strength of the aqueous phase of 1 and 1.5. The results are summarized in a table and given in figures 1 and 2. The nitric acid extraction in the organic phase increases with the rise of the ionic strength in the solution. A low distribution coefficient of the nitric acid is obtained by the use of barium nitrate as salting-out compound. The same effect is obtained by cobalt-, nickel-, and copper nitrates as salting-out compounds in the case of the nitric

Card 1/2

On the Influence of the Nitrates of Barium, Nickel, Cobalt, and Copper on the Extraction of Nitric Acid in Tributyl Phosphate (TBP)

SOV/78-4-6-40/44

acid extraction in the tributyl phosphate- and kerosene phase. The extraction of the nitric acid in the organic phase TBP-kerosene in the case of the use of salting-out compounds does not go under the ideal distribution law. Yu. F. Zhdanov and Z. A. Smyk assisted in the experiments. There are 2 figures, 1 table, and 4 references, 1 of which is Soviet.

SUBMITTED: March 25, 1958

Card 2/2

SHEVCHENKO, V.B.; SOLOVKIN, A.S.; SHILIN, I.V.; KIRILLOV, L.M.; RODIONOV, A.V.; BALANDINA, V.V.

Effect of hydrocarbons of the aliphatic and aromatic series on the extraction of U(VI), Pu(IV), Zr(IV), and Ce(III) with tri-n-butyl-phosphate from nitric acid solutions. Radiokhimiia 2 no.3:281-290 '60. (MIRA 13:10)

(Hydrocarbons) (Extraction (Chemistry))
(Butyl phosphate)

S/078/60/005/06/24/030
B004/B014

21.3200

AUTHORS: Shevchenko, V. B., Shilin, I. V., Zhdanov, Yu. F.

TITLE: The Behavior of Copper Nitrate in the Extraction of the Nitrates of Uranyl and Plutonium by Means of Solutions of Tributyl Phosphate

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol. 5, No. 6, pp. 1366 - 1374

4

TEXT: The authors of the present paper wanted to study the behavior of large impurities of copper (in addition to compounds of Ni, Cr, Fe, Co, and Mo) in nuclear fuel that is regenerated by extraction by means of benzene- or kerosene solutions of tributyl phosphate (TBP). The authors write down the reaction equation (2) for the extraction of $Cu(NO_3)_2$, and on the basis of the law of mass action they derive equation (3): $\log K_d = \log K + x \log [TBP]_{org}$, where K_d = distribution ratio of $Cu(NO_3)_2$ and K = equilibrium constant. It follows from Table 1 and Fig. 1 that K_d increases with rising concentration of TBP and increasing ionic

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strength μ of the aqueous solution. K_d drops, however, with constant μ, constant concentration of TBP, and rising concentration of the copper nitrate in the aqueous solution (Figs. 8 and 9). K_d is higher in TBP-kerosene solution than in TBP benzene (Table 2). It follows from Fig. 2 that by means of TBP benzene copper nitrate is extracted as $Cu(NO_3)_2 \cdot 2TBP \cdot H_2O$, whereas it is extracted as $Cu(NO_3)_2 \cdot 3TBP \cdot 2H_2O$ by means of TBP kerosene. These compounds are only stable above $-10^\circ C$. Fig. 3 shows the effect of HNO_3 on K_d, Fig. 4 the distribution of HNO_3 among water and TBP in the presence of $Cu(NO_3)_2$. Fig. 5 shows that K_d does not depend on the equilibrium concentration of the H^+ ion. The distribution ratio of copper nitrate is lowered by the presence of uranyl nitrate (Table 3, Fig. 6), whereas aluminum nitrate raises K_d (Fig. 7). Furthermore, the authors studied the solubility of copper nitrate in TBP as well as the physical data of this solvent (Tables 4-6, Fig. 10). TBP kerosene is divided into two layers when it is saturated

The Behavior of Copper Nitrate in the Extraction of the Nitrates of Uranyl and Plutonium by Means of Solutions of Tributyl Phosphate

S/078/60/005/06/24/030
B004/B014

with copper nitrate (Table 7). Hence, the solubility of TBP saturated with copper nitrate is limited in saturated hydrocarbons. There are 10 figures, 7 tables, and 14 references: 8 Soviet, 1 American, 3 British, 1 German, and 1 Yugoslav.

SUBMITTED: February 26, 1959

Card 3/3

85627

S/078/60/005/012/014/016
B017/B064

21.3100

AUTHORS: Shevchenko, V. B., Shilin, I. V., Zhdanov, Yu. F.

TITLE: Behavior of Hexavalent and Trivalent Chromium in the Extraction of Uranyl Nitrate and Plutonium Nitrate With Tributyl Phosphate Solutions

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol. 5, No. 12, pp. 2832-2840

TEXT: Published data (Refs. 2-4), show that in the uranyl nitrate extraction with some organic solvents considerable amounts of chromium are coextracted. The behavior of hexavalent and trivalent chromium in the extraction of uranyl nitrate and plutonium nitrate with tributyl phosphate solutions was studied. The dependence of the distribution coefficient of hexavalent chromium on the tributyl phosphate concentrations was investigated. Hexavalent chromium was found to be extracted with tributyl phosphate, and the distribution coefficient of Cr^{6+} was found to increase when the tributyl phosphate concentration is increased. The effect of concentration of hexavalent chromium upon the distribution coefficient of

Card 1/3

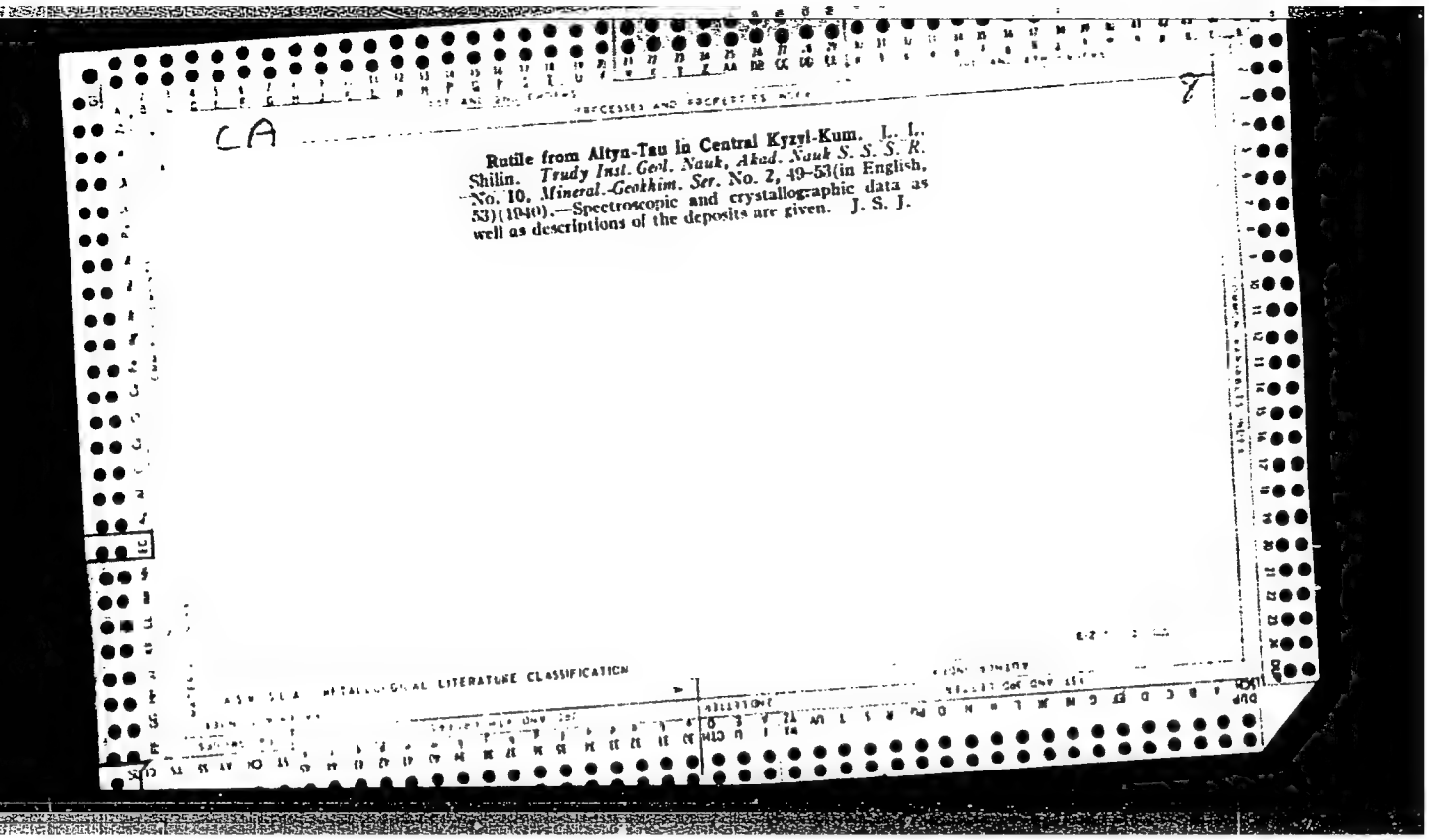
85627

Behavior of Hexavalent and Trivalent Chromium in the Extraction of Uranyl Nitrate and Plutonium Nitrate With Tributyl Phosphate Solutions

S/078/60/005/012/014/016
B017/B064

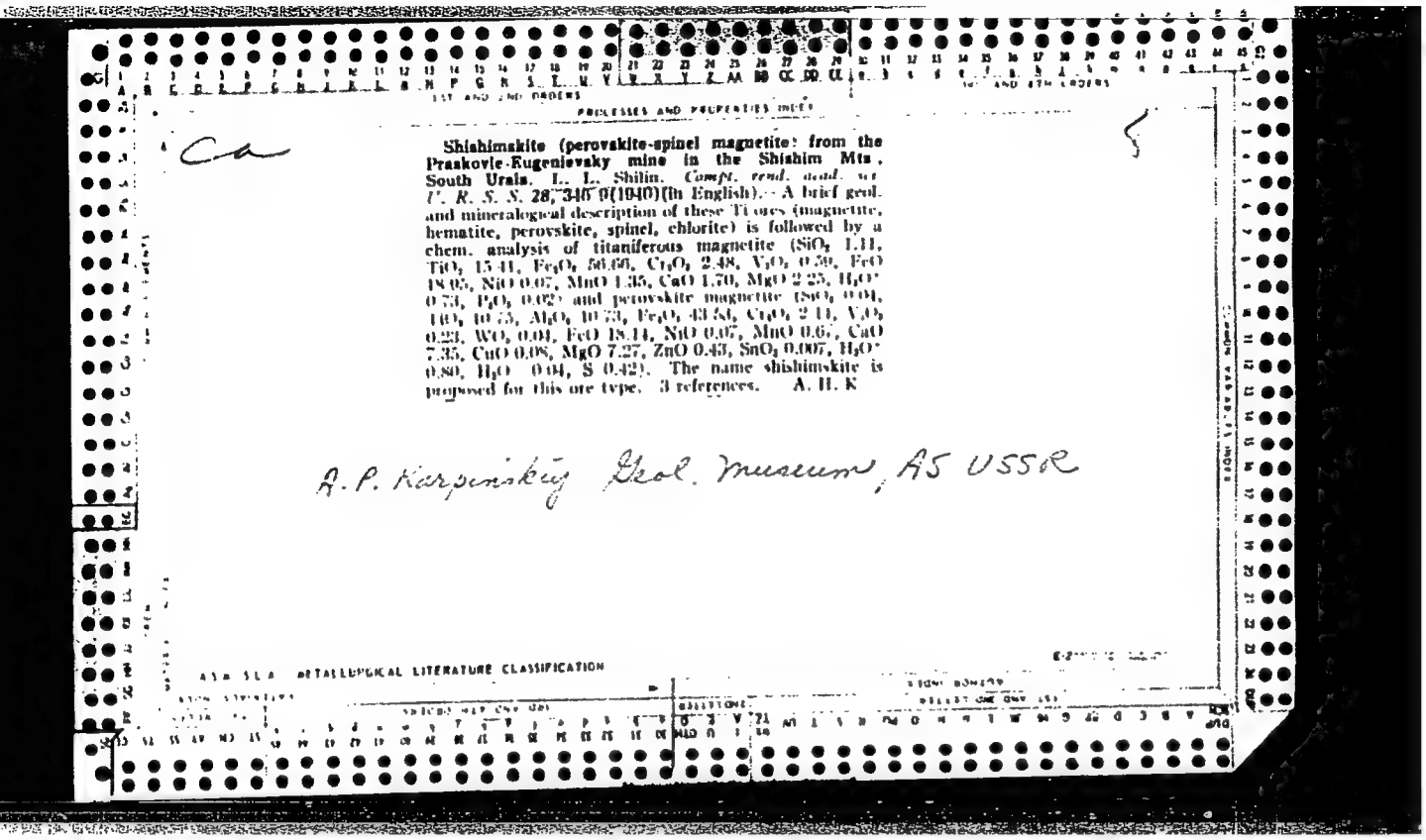
Cr^{6+}, and the effect of hydrogen ion concentration upon the distribution coefficient were also studied. Data of Table 3 show that the distribution coefficient rises with increasing concentration of hydrogen ions in the aqueous phase. This proves the fact that the extraction of hexavalent chromium occurs in the form of chromic acid. The following extraction equation is given: $H_2CrO_4 + 3\ TBP \rightleftharpoons H_2CrO_4 \cdot 3\ TBP$. Fig. 4 shows the distribution coefficient of hexavalent chromium as a function of the equilibrium concentration of nitric acid in the aqueous phase. From the course of the curve it may be seen that with increased nitric acid concentration the number of associated chromic acid molecules is also increased. The effect of uranyl nitrate upon the distribution coefficient of hexavalent chromium was investigated. At a concentration of uranyl nitrate higher than 1 mole/l, the distribution coefficient of Cr^{6+} decreases. The effect of the sodium nitrate concentration upon the Cr^{6+} distribution coefficient was also studied. The dissociation constants K_3 and K_4 of the chromic acid - tributyl phosphate complex were determined, and the following values

Card 2/3



CA

Rutile from Altyn-Tau in Central Kyzyl-Kum. L. I. Shilin. *Trudy Inst. Geol. Nauk, Akad. Nauk S. S. S. R.* No. 10, *Mineral.-Geokhim. Ser.* No. 2, 49–53(in English, 53)(1940).—Spectroscopic and crystallographic data as well as descriptions of the deposits are given. J. S. J.

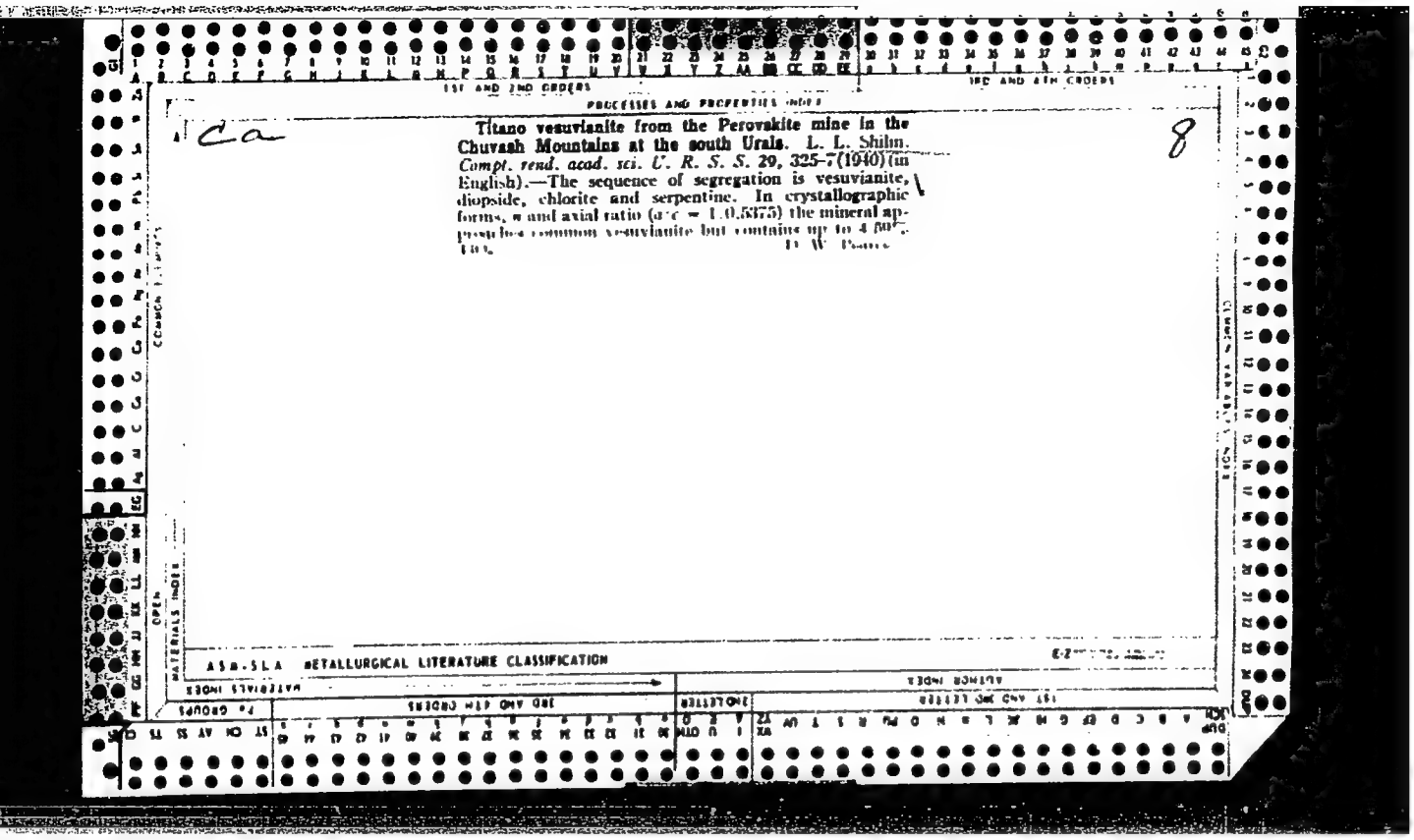


Ca

Shishimskite (perovskite-spinel magnetite) from the Praskovie-Eugenievsky mine in the Shishim Mts., South Urals. L. L. Shilin. *Compt. rend. acad. sci. U. R. S. S.* 28, 346-9(1940)(In English).—A brief geol. and mineralogical description of these Ti ores (magnetite, hematite, perovskite, spinel, chlorite) is followed by a chem. analysis of titaniferous magnetite (SiO_2 1.11, TiO_2 15.41, Fe_2O_3 56.66, Cr_2O_3 2.48, V_2O_5 0.59, FeO 18.05, NiO 0.07, MnO 1.35, CaO 1.70, MgO 2.25, H_2O^+ 0.73, P_2O_5 0.02) and perovskite magnetite (SiO_2 0.04, TiO_2 10.75, Al_2O_3 10.73, Fe_2O_3 43.58, Cr_2O_3 2.11, V_2O_5 0.23, WO 0.04, FeO 18.14, NiO 0.07, MnO 0.67, CaO 7.35, CuO 0.08, MgO 7.27, ZnO 0.43, SnO_2 0.007, H_2O^+ 0.80, H_2O^- 0.04, S 0.42). The name shishimskite is proposed for this ore type. 3 references. A. H. K

A. P. Karpinsky Geol. Museum, AS USSR

ASM SLA METALLURGICAL LITERATURE CLASSIFICATION



1 Ca

8

Titano vesuvianite from the Perovskite mine in the Chuvash Mountains at the south Urals. L. L. Shilin. *Compt. rend. acad. sci. U. R. S. S.* **29**, 325–7 (1940) (in English).—The sequence of segregation is vesuvianite, diopside, chlorite and serpentine. In crystallographic forms, n and axial ratio ($a:c$ = 1:0.5375) the mineral approaches common vesuvianite but contains up to 4.50% [illegible]. H. W. Perry

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

Shilin, L.L.

USSR/

Garnets from the Shishim Mountains. L. L. Shilin. *Trudy Mineralog. Muzeya, Akad. Nauk S.S.S.R.* No. 3, 146–9(1951).—While the old analyses of garnets (G. Rose, 1842; Ivanov, 1853) corresponded to those of pure grossularite and andradite, three new analyses from material of the Praskov'e-Evgen'evsk Mine and Barbot-de-Marni are those of intermediate Ca-Fe[III] garnets. After the deduction of some chlorite as contamination, the wax-yellow garnet, n 1.752, from a coarse-granular chlorite schist (a highly metamorphic gabbro-pegmatite) contains 66.12% grossularite and 20.5% andradite. This interesting garnet was formed from basic plagioclase and pyroxenes of the primary gabbroidal rocks. Two red-colored garnets (with n 1.87) contain also chlorite inclusions, and 50.9 and 51.8% grossularite, 46.0 and 41.2% andradite, resp. They are found in garnet-vesuvianite-epidote rocks which have originated by hydrothermal metasomatism on the walls of cracks in the mother rocks. Another type of a nearly black, dark-brown garnet (not analyzed) shows n 1.905, and contains considerable amts. of TiO_2.

W. Eitel

SHILIN, L. L.

USSR

Chlorites from the Praskov'e-Evgen'evsk mines Shishimsk Mountain in the Urals. L. L. Shilin. *Voprosy Petrog. i Mineral., Akad. Nauk S.S.S.R.* 2, 181-8 (1953).—New exploration pits and trenches in the famous mineral occurrences of Nikolaf-Maksimilianovsk, the marble quarry, and Praskov'e-Evgene'sk mines have uncovered an interesting series of minerals of the contacts of gabbro and plagiogranites with limestones (*C.A.* 23, 1369). Three varieties of chlorite are described: yellowish gray, in dense fine tabular masses, on veinlets in plagiogranite is leuchtenbergite (I), with $\gamma = 1.580$; $\alpha = 1.575$; inclusions of garnet (n 1.789) are characteristic; green chlorite (II) on fissures of the garnet-vesuvianite rocks and micrognabbro, often well

L. L. SHILIN

crystd. on druses; 2V very small, optically pos.; γ = 1.584; α = 1.582; d. 2.764, in paragenesis with epidote, zoisite, garnet, sphene, and diopside; white chlorite (III), assocd. with magnetite, Ti magnetite, and perovskite-spinel-magnetite veins, in dense scaly masses; 2V small, optically pos.; γ = 1.587; α = 1.578; d. 2.675. The chem. analyses given are calcd. with the crystallochem. formulas, and plotted with RO/SiO_2 in the ordinates, R_2O_3/SiO_2 in the abscissas. The formulas are for I: $(Mg_{5.14}Ca_{0.07}Fe(II)_{0.01}Al_{1.41}Fe(III)_{0.38})(Si_{3.17}Al_{1.42}O_{10})(OH)_8$; II $(Mg_{4.52}Fe(II)_{0.55}Al_{1.13}Fe(III)_{0.13})(Si_{2.67}Al_{1.33}O_{10})(OH)_{7.77}$; III $(Mg_{4.53}Fe(II)_{0.02}Al_{1.62}Fe(III)_{0.11})(Si_{2.62}Al_{1.38}O_{10})(OH)_8$. I is almost a corundophilite; II and III are typical prochlorites. Winchell's theory that the chlorites are based on the line serpentine-amesite is not confirmed by the 11 new analyses; the deviations are explained by the replacement of $R(II)_3 \rightleftharpoons R(III)_2$ cations in the octahedral layers which Serdyuchenko (*C.A.* 43, 524*d*, 6120*h*) has discussed. The differential-thermal curves show for II endothermal effects at 650° and 805°, for the III at 660° (weak) and a stronger one at 900°, analogous to V. P. Ivanova's results (1949). The x-ray diagrams are those of clinochlores. W. Eitel

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USSR

Lithium micas from pegmatites of alkaline magmas. L. L. Shilin. *Trudy Mineralog. Muzeya, Akad. Nauk S.S.S.R.* 5, 153-63(1953).—Monomineralic aggregates (10 to 20 cm. in diam.) of Li micas are described, of pale-rose or greenish color, from alk. syenite pegmatites. The mother rock is intensely changed to a coarse-granular natrolite. The mica was detd. to be lithionite, in scaly crystal aggregates. The ds. varied between 2.833 and 2.757; $\gamma = \beta = 1.523$ to 1.555; $\alpha = 1.511$ to 1.511; birefringence between 0.012 and 0.014. Three chem. analyses are discussed, in comparison with lepidolite and other Li micas. Particularly characteristic is the high Si^{4+} in the tetrahedral groups (3.90), and the strong replacement of Mg^{2+} by Li^{+} in the octahedral group. The lithionites are also intermediate between the phlogopite and muscovite mica types. In the x-ray diagrams lepidolite and muscovite are much more similar to each other than lepidolite and lithionite. The differential thermal curves show distinct endothermal effects at 900° to 910°, and 975° to 980°; slight effects at 130° to 180° and 530° to 750° are probably contaminations by montmorillonite. Lepidolite and muscovite are much different in their thermal behavior. The lithionite in the alk. pegmatite is of relatively late crystn. in the post-magmatic hydrothermal facies. W. Eitel

SHILIN, I. V.

USSR/Cosmochemistry - Geochemistry. Hydrochemistry D.

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4158

Author : Shilin [redacted]
Inst : Academy of Sciences USSR
Title : Karpinskiite -- A New Mineral

Orig Pub : Dokl. AN SSSR, 1956, 107, No 5, 737-739

Abstract : In one of the northern districts of USSR, in a series of pegmatite veins, a small pegmatite lenticular body was studied, conformably occuring within modified luyavrites. The lenticular body consists essentially of nitrolite and albite expanding thereon. In small cavities therein was found, in 1952, together with albite and less frequently with natrolite and kozhanovite (carnasurtite), the new mineral karpinskiite, deposited from late hydrotherms. The mineral is white. Luster glassy to nacreous. Hardness not above 1.5-2. On comminution separates into minute fibers, converted thereafter into flocculent

Card 1/3

USSR/Cosmochemistry - Geochemistry. Hydrochemistry D.

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4158

$0.98^{Al}1.94^{Fe^{3+}}0.01^{Si}5.71^{C}14.65^{(OH)}3.35$. Empirical formula $Na_2(Be, Zn, Mg)Al_2Si_6O_{16}(OH)_2$. Powder roentgenogram secured. The mineral was named in honor of the late president of the Academy of Sciences USSR, A.P. Karpinskiy.

Card 3/3

SHILIN, L.L.;SEMENOV, Ye.I.

The beryllium minerals epididymite and eudidymite in alkaline pegmatites of the Kola Peninsula. Dokl. AN SSSR 112 no.2:325-328 Ja '57. (MLRA 10:4)

1. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii Akademii nauk SSSR. Predstavleno akademikom N. V. Belovym.

(Kola Peninsula--Beryllium ores)

SHILIN, L.L.; YANCHENKO, M.T.

Kncpite from the apatite-nepheline ores of the Khibiny massif.
Dokl.AN SSSR 144 no.3:639-642 My '62. (MIRA 15:5)

1. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii AN SSSR.
(Khibiny Mountains—Knopite)

VOLYNETS, O.N.; KOLOSKOV, A.V.; FLEROV, G.B.; FRIKH-KHAR, D.I.; SHILIN, N.L.

Formational delineation of Tertiary plutonic and volcanic-plutonic formations in central Kamchatka. Dokl. AN SSSR 165 no.1:153-155 N '65. (MIRA 18:10)

1. Institut vulkanologii Sibirskogo otdeleniya AN SSSR. Submitted March 10, 1965.

VOLYNETS, O.N.; SHILIN, N.L.

On a type of ore manifestation new to Kamchatka. Dokl. AN SSSR 161 no.6:1412-1415 Ap '65. (MIRA 18:5)

1. Institut vulkanologii Sibirskogo otdeleniya AN SSSR. Submitted December 2, 1964.

SHILIN, N. V.: Master Tech Sci (diss) -- "Problems of the theory and computation of the arc-quenching equipment of oil circuit breakers". Moscow, 1958. 23 pp (Min Higher Educ USSR, Moscow Order of Lenin Power Engineering Inst), 150 copies (KL, No 6, 1959, 137)

SOV/1~~61~~-58-1-31/33

AUTHOR: Shilin, Nikolay Vasil'yevich, Engineer at the Chair of Electrical Apparatus Design at the Moscow Institute of Power Engineering

TITLE: Pressure Computation in Arc-Suppression Devices With Automatic Air Blast (Raschet davleniya v dugogasyashchikh ustroystvakh gazovogo avtodut'ya)

PERIODICAL: Nauchnyye doklady vysshey shkoly, Elektromekhanika i avtomatika, 1958, Nr 1, pp. 251-259 (USSR)

ABSTRACT: At present a continuous air blast is being applied more and more. In this paper and in reference 3 it was shown that it is most expedient. The Chair of Electrical Apparatus Design at the Moscow Institute of Power Engineering applied an arc-suppression device in the automatic air blast. Thus, an increase of the breaking power from 100 MVA to 200 MVA and from 150 MVA to 300 MVA, respectively, was attained with the circuit breakers of the type VM-14 and VM-22, respectively. No method has hitherto been known for the computation of the pressure in arc-suppression devices in the automatic air blast. This is due to the fact that all earlier methods of

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Pressure Computation in Arc-Suppression Devices With Automatic Air Blast

computation are based upon the assumption that the gas volume in the arc-suppression device remains constant during air blasting. As, however, no elastic cushion exist in continuous air blasting, the initial equations as given in reference 3 are useless. This problem is solved by examining the hydrodynamical processes in the arc-suppression device. First, the conditions in a closed gas blast are investigated. The influence of the non-steady flowing out of oil and that of the volume set free by the movable contacts upon the pressure curves as far as they determine the volume which is accessible to gas in their air blast device is determined. The blasting during the opening of the blast slit is investigated next, and lastly also blasting with a completely opened slit. On this basis the computation of the pressure in the continuous gas blasting is given. There are 4 figures and 4 references, which are Soviet.

SOV/161-58-1-31/33

Pressure Computation in Arc-Suppression Devices With Automatic Air Blast

ASSOCIATION: Kafedra elektricheskikh apparatov Moskovskogo energeticheskogo instituta (Chair of Electrical Apparatus at the Moscow Institute of Power Engineering)

SUBMITTED: January 10, 1958

Card 3/3

10(7)

AUTHOR: Shilin, N. V., Engineer, Chair of Designing of Electric Apparatus, Moscow Power Engineering Institute

SOV/161-58-2-22/30

TITLE: Calculation of Gas-Hydrodynamic Processes in Arc-Extinguishing Devices During Automatic Gas Blowing With Regard to the Arc Voltage Dependence From the Blowing Intensity (Uchet zavisimosti napryazheniya dugi ot intensivnosti dut'ya pri raschete gazogidrodinamicheskikh protsessov v dugogasyashchikh ustroystvakh gazovogo avtodut'ya)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Elektromekhanika i avtomatika, 1958, Nr 2, pp 175-186 (USSR)

ABSTRACT: This article is the continuation of paper (Ref 1), and shows the calculation of gas-hydrodynamic processes in arc-extinguishing devices (AD) during automatic gas-blowing under consideration of the arc-voltage dependence on the blowing intensity (pressure). On the basis of the investigation submitted the following has been found: 1. By means of the approximate integration method of differential equations and taking into account the dependence of the arc voltage on the blowing intensity, the solution of the questions connected

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Calculation of Gas-Hydrodynamic Processes in Arc-Extinguishing Devices During Automatic Gas Blowing With Regard to the Arc Voltage Dependence From the Blowing Intensity

SOV/161-58-2-22/30

with the calculation of gas-hydrodynamic processes in the AD's permits pressure calculation when the aperture opens as well as the determination of the volume of the discharged oil. 2. The method submitted here permits also more difficult problems to be solved: calculation of gas-hydrodynamic processes at a more complex analytic dependence of the arc-voltage gradient E on the pressure p, and of the gas temperature T_G on I and p. By lack of reliable experimental data these questions were not investigated. 3. In order to calculate gas-hydrodynamic processes at a system with closed gas hole at $Q_o \approx 0$ (volume of elastic pad) in a reliable way, quantitative conditions characteristic of the physical processes in the gas hole after contacts have begun to open (period from 0 to $5 \div 8 \cdot 10^{-3}$ sec) will have to be determined. Finally a calculation example of a pressure curve for an arc-extinguishing device model of an oil switch for $6 \div 10$ kv is presented. There are 4 figures and 7 Soviet references.

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Calculation of Gas-Hydrodynamic Processes in Arc-Extinguishing Devices During Automatic Gas Blowing With Regard to the Arc Voltage Dependence From the Blowing Intensity

SOV/161-58-2-22/30

ASSOCIATION: Kafedra elektroapparatostroyeniya Moskovskogo energeticheskogo instituta (Chair of Electric Apparatus Designing at the Moscow Power Engineering Institute)

SUBMITTED: January 10, 1958

Card 3/3

SHILIN, N.V.

Calculation of aerodynamic and hydrodynamic processes in arc-supression systems using an oil blast. Nauch.dokl.vys.shkoly; energ. no.3:81-92 '58. (MIRA 12:1)

1. Rekomendovano kafedroy elektroapparatostroyeniya Moskovskogo energeticheskogo instituta.
(Electric circuit breakers)

SHILIN, N.V., kand.tekhn.nauk

Effect of parameters on the performance of arc-quenching devices with automatic gas blowout. Elektrichestvo no.4: 74-79 Ap '62. (MIRA 15:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut elektroenergetiki Moskva.

(Electric cutouts)

SHILIN, N.V., kand. tekhn. nauk

Operation of the arc-quenching devices of high-voltage oil filled switches. Trudy MEI no.39:149-164 '62.
(MIRA 17:6)

GANICHEV, A.A. ; GOLANT, V.Ye.; ZHILINSKIY, A.P.; KHOTIMSKIY, B.Z.; SHILIN, V.N.

Diffusion of charged particles of a disintegrating plasma in a magnetic field. Zhur. tekh. fiz. 39 no.1:77-88 Ja '64. (MIRA 17:1)

1. Leningradskiy politekhnicheskiy institut imeni M.I.Kalinina.

AP6029675 (N) SOURCE CODE: UR/0136/66/000/008/0077/0080

AUTHORS: Krasnikov, N. Ye.; Kushakevich, S. A.; Tokmakov, P. Ya.; Kazadov, K. A.; Shilin, O. K.; Gritsenko, Yu. P.; Matveyev, G. I.

ORG: none

TITLE: Adoption of rolling large round profiles from titanium alloys

SOURCE: Tsvetnyye metally, no. 8, 1966, 77-80

TOPIC TAGS: titanium alloy, metal rolling, metal forming

ABSTRACT: The rolling of large diameter (25 - 60 mm) titanium alloy stock was studied. Prior to rolling the specimens were heated for 10 min in an induction furnace up to a temperature of 1270--1370K, and for 5 min in a silit furnace at a temperature of 1270--1370K. A schematic of the rolling scheme is presented (see Fig. 1). The rolling margin was calculated after the formula of N. Ye. Krasnikov and N. P. Skryabin (Tsvetnyye metally, 1965, No. 4)

$$\Delta h = \frac{\Delta h \cdot B_0 \sqrt{\Delta h \cdot r}}{(H+h)^2} \times \left[1{,}7 - \frac{B_0 \sqrt{\Delta h \cdot r}}{(H+h)^2}\right],$$

where Δh is the absolute compression, B_0 - width of zone before passage, H and h - height of zone before and after passage respectively, and r - the radius of the working roller. It was found that the experimental data were in good agreement with

 UDC: 669.295-422.1:622.771.2

ACC NR: AP6029673

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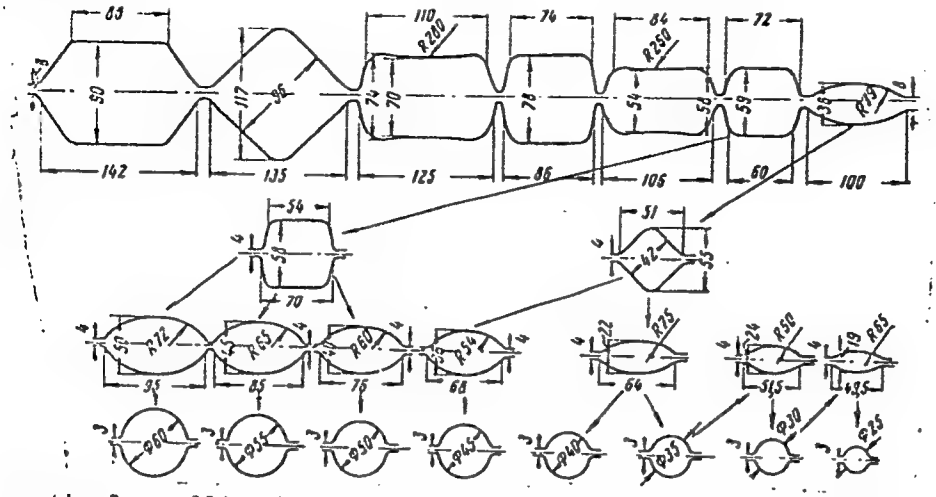

Fig. 1. Schematic for rolling large round profiles on rolling stand 450

the above equation. The degree of mold filling for hexagonal, square, and oval specimens was calculated after I. Ya. Tarnovskiy (Formoizmeneniye pri plasticheskoy obrabotke metallov, Metallurgizdat, 1953). The results are tabulated. It is concluded that rolling of large diameter stock made of titanium alloys VT1-1, VT3-1, OT4, VT5, VT5-1, VT6, VT8, VT15, VT14, and others yields products with satisfactory mechanical properties. Orig. art. has: 1 table, 3 graphs, and 4 equations.

Card 2/2 SUB CODE: 13/ SUBM DATE: none/ ORIG REF: 006/ OTH REF: 001

SHILIN, P.A., inzhener; NESHCHADIM, A.G., inzhener.

Processing soybeans. Masl.-zhir.prom. 21 no.3:34-35 '56.(MLRA 9:8)

1. Slavyanskiy maslozhirkombinat.
(Soybean oil)

SHILIN, P.A., inzh.; CHEBERYAKO, I.F., inzh.

Operation of the Slavyansk Oil-fat combine. Masl.-zhir.prom. 26 no.3:34-35 Mr '60. (MIRA 13:6)

1. Slavyanskiy maslozhirovoy kombinat.
(Slavyansk--Oil industries)

SHILIN, P.V.

New data on the Jurassic flora of the Mkhat deposits (Turgay Trough). Mat. po ist. fauny i flory Kazakh. 4:192-200 '63. (MIRA 16:9)
(Turgay gates--Paleobotany, Stratigraphic)

Name	:	SHILIN, S. V.
Dissertation	:	Some problems in nutritional sterility in high-production cows
Degree	:	Cand Vet Sci
Defended At	:	Moscow Veterinary Academy, Min Agriculture USSR
Publication Date, Place	:	1956, Moscow
Source	:	Knizhnaya Letopis' No 5, 1957

SHILIN, S. V.

USSR/Human and Animal Physiology - Reproduction. R-9

Abs Jour : Referat Zhur - Biologya, No 16, 1957, 71045

Author : Shilin, S.V.
Inst :
Title : Some Data on the Pathology of Reproduction in Highly Productive Cows.

Orig Pub : Tr. Mosc. vet. akad., 1956, 18, 179-190

Abstract : No abstract.

Card 1/1

USSR/Diseases of Farm Animals. Pathology of Reproduction R-3

Abs Jour : Ref Zhur - Biol., No 7, 1958, No 31120

Author : Shilin, S.V.
Inst : Moscow Veterinary Academy
Title : On the Infertility of High-Producing Cows.

Orig Pub : Tr. Mosk. vet. akad., 1956, 18, 191-197

Abstract : On certain farms, infertility among high-producing cows, especially those on concentrate diet, attains high proportions. The character of changes in genital organs of 23 cows affedted with infertility was studied. Dystrophic changes were discovered in all cows and in certain cases (21.7%) inflammatory changes of the genital organs were also observed. The most characteristic deep dystrophic processes found in the genital organs were as follows: hyalinosis of the blood vessels, widening and hyalinosis of intermuscular lamina of the connective tissue, insufficient development of the follicles, destruction of ovicells of the follicles,

Card : 1/2

SHILIN, S.V.

Smolensk Veterinary Research Station. Trudy VIEV 23:400-401 '59.
(MIRA 13:10)
(Smolensk Province--Veterinary research)

L 17886-65 EWT(m) DIAAP/SSD/AFWL/ASD(a)-5/AFMD(c)/APGC(b)/ESD(dp)
ACCESSION NR: AP4049258 S/0361/64/000/001/0060/0066

AUTHORS: Burmistrov, V. R.; Abil'dayev, A. Kh.; Shilin, V. A. 42

TITLE: Gamma-Gamma coincidence setup with energy analysis of the coinciding radiations

SOURCE: AN Kazakhskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, no. 1, 1964, 60-66

TOPIC TAGS: coincidence counter, gamma gamma coincidence, pulse height analyzer, energy spectrum, radioactive source

ABSTRACT: An installation was developed at the Institut yadernoy fiziki AN KazSSR for $\gamma\gamma$ coincidences, with energy analysis of the coincident radiations in the energy range 100 keV to 3 MeV. A block diagram of the fast-slow coincidence setup is analogous to that described in K. Siegbahn's Beta and Gamma Spectroscopy (North Holland, Amsterdam, 1955). The associated fast-coincidence circuit is a modi-

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ACCESSION NR: AP4049258

fied version of that described by A. S. Melioranskiy and A. A. Petushkov (PTE, 1961, no. 1, 104). The detectors used are NaI(Tl) crystals with FEU-11 photomultipliers. The output of the fast coincidence circuit is fed to a single-channel type AADO-1 analyzer, whose slow-coincidence circuit output is shaped and fed to the control circuit of a pulse height analyzer (AI-100-1). The discriminator window is adjusted in such a way that the circuit remains the same during the adjustment and during the performance of the experiment. The circuit was used to investigate the influence of the resolution time on the dynamic range and to determine the spectra of Co^{60}, Cs^{134}, and Zn^{65} at a coincidence-circuit resolution time 0.04--0.1 μsec. The dynamic range increased from about 4 at 0.04 μsec to 12 at 0.1 μsec, depending on the pulse amplitudes in the control and analysis channels. Plots of the different spectra are included. Orig. art. has: 7 figures and 1 table.

ASSOCIATION: None

Card 2/3

L 17886-65
ACCESSION NR: AP4049258

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SUBMITTED: 04Feb63 ENCL: 00

SUB CODE: NP NR REF SOV: 002 OTHER: 000

Card 3/3

MIKELADZE, G.Sh.; NADIRADZE, Ye.M.; PKHAKADZE, Sh.S.; GOGORISHVILI, B.P.; DGEBAUDZE, G.A.; SOLOSHENKO, P.S.; SEMENOV, V.Ye.; BARASHKIN, I.I.; SHIRYAYEV, Yu.S.; POSPELOV, Yu.P.; KATSEVICH, L.S.; ROZENBERG, V.L.; Prinimali uchastiye: LORDKIPANIDZE, I.S.; TSKHVEDIANI, R.N.; DZODZUASHVILI, A.G.; DUNIAVA, A.G.; PERARSKIY, L.F.; GRITSENYUK, Yu.V.; ZHELTOV, D.D.; LUZANOV, I.I.; GLADKOVSKIY, V.P.; PODMOGIL'NYY, V.P.; VOROPAYEV, I.P.; BRIKOVA, O.V.; VRUBLEVSKIY, Yu.P.; KLYUYEV, V.I.; BAYCHER, M.Yu.; LOGINOV, G.A.; SHILIN, V.K.; POPOV, A.I.; ZASLONKO, S.I.

Industrial experiments in the smelting of 45 o/o ferrosilicon in a heavy-duty closed electric furnace. Stal' 25 no.5:426-429 My '65. (MIRA 18:6)

1. Gruzinskiy institut metallurgii (for Lordkipanidze, TSkhvediani, Dzodzuashvili, Guniava). 2. Nauchno-issledovatel'skiy i proyektnyy institut metallurgicheskoy promyshlennosti (for Brikova, Vrublevskiy, Klyuyev). 3. Vsesoyuznyy nauchno-issledovatel'skiy institut elektrotermicheskogo oborudovaniya (for Baycher, Loginov, Shilin, Popov, Zaslonko).

ACCESSION NR: AP4009923 S/0057/64/034/001/0077/0088

AUTHOR: Ganichev,A.A.; Golant,V.Ye.; Zhilinskiy,A.P.; Khotimskiy,B.Z.; Shilin,V.N.

TITLE: Investigation of the diffusion of charged particles in a decaying plasma in a magnetic field

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.1, 1964, 77-88

TOPIC TAGS: plasma, plasma decay, diffusion, charged particle diffusion, diffusion in magnetic field, ambipolar diffusion, helium plasma, helium plasma decay, helium ion diffusion

ABSTRACT: Previous measurements (V.Ye.Golant and A.P.Zhilinskiy,ZhTF,32,127,1962) have shown an anomalously high rate of decay of plasma in a longitudinal magnetic field when the diameter of the discharge tube is small. In order to investigate this phenomenon, the decay of spectroscopically pure helium plasmas was observed in glass and quartz discharge tubes with diameters ranging from 0.4 to 6.6 cm. Longitudinal magnetic fields up to 6000 Oe were employed with the smaller discharge tubes, and fields as high as 1300 Oe were employed with the largest tube. The plasmas were formed by hot cathode pulse discharges in He at pressures from 0.05 to 1.5 mm Hg.

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ACC.NR: AP4009923

The decay was followed by observing the shift of the resonant frequency of a microwave resonant cavity surrounding part of the discharge tube. In some cases the change in the Q of the cavity was also followed in order to obtain information about electron collision rates. Wavelengths in the neighborhoods of 3 and 30 cm were employed. Transverse diffusion coefficients were calculated from the observed decay curves with the aid of suitable assumptions concerning the longitudinal diffusion. The transverse diffusion coefficients obtained for plasmas in discharge tubes with diameters of 4 cm or greater agreed well with theoretical values. Those for plasmas in smaller discharge tubes did not, the observed transverse diffusion coefficients being greater than the theoretical by a quantity that is roughly independent of the magnetic field. The following possible causes for this anomalous behavior are briefly discussed and rejected: impurities in the gas; enhanced electron temperatures; disturbance of the ambipolar diffusion mechanism by magnetic field inhomogeneities. The authors consider it most likely that an instability develops and gives rise to anomalous transverse diffusion. The excitation of oblique drift waves or ionic-acoustic waves, and the development of small scale flute instability are mentioned as possibilities. During the experiments it was noted that even a very small misalignment of the discharge tube with respect to the magnetic field would greatly increase the plasma decay rate. The diffusive decay of a plasma in a rec-

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ACC.NR: AP4009923

tangular discharge tube in an oblique magnetic field is treated theoretically. It is shown that when the angle between the discharge tube axis and the magnetic field lies between certain limits, the ambipolar diffusion mechanism is disturbed and the electrons diffuse primarily along the magnetic field while the ions diffuse mainly transversely to it. The relation between obliquity to the magnetic field and plasma decay rate calculated for a rectangular discharge tube accounts reasonably well for the effect observed with cylindrical tubes. "The authors express their deep gratitude to V.V.Bulanin, who participated in some of the experimental investigations. The authors are deeply grateful to O.P.Bochkova, in whose laboratory the spectrum analysis of the gas was conducted." Orig.art.has: 28 formulas, 8 figures and 2 tables.

ASSOCIATION: Leningradskiy politekhnicheskiy institut im.M.I.Kalinina (Leningrad Polytechnic Institute)

SUBMITTED: 09Jul63 DATE ACQ: 10Feb64 ENCL: 00

SUB CODE: PH NR REF SOV: 012 OTHER: 003

Card 3/3

SHILIN, Ya.V., doktor meditsinskikh nauk (Kuybyshev).

Role of trophic innervation in regenerative processes of the cornea. Vest. oft. 32 no.5:36-39 S-O '53. (MLRA 6:10)
(Cornea) (Regeneration (Biology))

SHILIN, Ya.V., doktor meditsinskikh nauk (Kuybyshev)

Electrosurgery of malignant and benign neoplasms of the eyelid and of the anterior part of the eye. Vest. oft. 33 no.4:7-10 Jl-Ag '54. (MLRA 7:8)

(EYE, neoplasms,
*surg., diathermy)
(EYELID, neoplasms,
*surg., diathermy)
(DIATHERMY, in various diseases,
*eye & eyelid tumors)

SHILIN, Ya.V., doktor med.nauk; LEONOVA, A.I.; LEMESH, N.S.; MOROZOVA, L.A.

Surgical treatment of strabismus. Vest.oft. 70 no.5:57-58 S-O '57. (MIRA 12:6)

1. Poliklinicheskoye otdeleniye TSentral'noy bol'nitsy im. N.I.Pirogova (glavnyy vrach N.S.Barkov), Kuybyshev.
(STRABISMUS, surg.
technic)

SHILIN, Yu.A., gornyy inzh.

Correct the drawbacks of BSN rotary boring rigs. Gor.zhur. no.8:72-73 Ag '65. (MIRA 18:10)

1. Chernomorvzryvprom, Odessa.

SHILIN, Yu.A., gornyy inzh.

Boring bit for the BSN rotary drilling machine. Gor. zhur. no.9:69 S '64. (MIRA 17:12)

1. Upravleniye Chernomorvzryvprom, Odessa.

L 22148-66 EWP(f)/T-2/ETC(m)-6 WW

ACC NR: AP6012950 SOURCE CODE: UR/0096/65/000/011/0002/0012

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B

AUTHOR: Kosyak, Yu. F. (Engineer); Galatsan, V. N. (Engineer); Shilin, Yu. P. (Engineer); Polyakov, V. S. (Engineer); Abramenko, O. B. (Engineer); Nosyl'ko, D. R. (Engineer)

ORG: KHTGZ, ORGRES, Pridneprovskaya GRES

TITLE: First experience in starting and operation of a pilot model of the K-300-240-KhTG3 turbine

SOURCE: Teploenergetika, no. 11, 1965, 2-12

TOPIC TAGS: thermoelectric power plant, electric rotating equipment

ABSTRACT: Since the end of 1963, a combined team from ORGRES (Moscow), the Khar'kov Turbine Plant and the Pridneprovskaya GRES have been working to develop and test starting, load and stopping regimes for a 300 Mw power unit consisting of the TPP-110 boiler and the K-300-240-KhTGZ turbine. During the initial and most subsequent startups, the temperature states of the steam conduits and the turbine were monitored with both standard control-measurement devices and special thermocouples placed for the investigations. Starts were performed from the cold, hot and intermediate states. The article presents a cross section of the turbine, steam-flow chart during startup, a diagram of the locations of thermocouples in the turbine during testing, and startup graphs for the various states. A recommended startup schedule from the cold

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UDC: 621.165.001.42.001.5

L 22148-66
ACC NR: AP6012950

state is presented in graphic form. The authors conclude that the graph represents a startup regime which is satisfactory for cold starting of the unit, but make several concrete recommendations for areas of caution or improvement. It was found that the cooling of the unit does not result in over-standard temperature or dimensional differences at any time, so that startup from partially-cooled states is always possible. Orig. art. has: 9 figures. [JPRS]

SUB CODE: 10, 13 / SUBM DATE: none / ORIG REF: 002

Card 2/2 dda

SPIVAK, G.V.; PRYAMKOVA, I.A.; FETISOV, D.V.; KABANOV, A.N.; LAZAREVA, L.V.; SHILINA, A.I.

Mirror-type electron microscope for studying surface structures. Izv.AN SSSR.Ser.fiz. 25 no.6:683-690 Je '61. (MIRA 14:6)

1. Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.

(Electron microscope)

SHILINA, Anna Lukinichna; GOLUBKOVA, Ye.S., redaktor; MAL'KOVA, N.V., tekhnicheskiy redaktor.

[Reinforced concrete] Zhelezobeton. Izd-vo 2-oe. Moskva, Nauchno-tekhn. izd-vo avtotransp. lit-ry, 1955. 46 p.(MLRA 9:5)
(Reinforced concrete)

MATAROV, Ivan Aleksandrovich, kand.tekhn.nauk; SMIRNOVA, Lidiya Semenovna, inzh.; SHILINA, Anna Lukinichna, inzh.; SEREGIN, I.N., inzh.; MAL'KOVA, N.V., tekhn.red.

[Precast reinforced concrete bridges with multiple-row welded bars] Sbornye zhelezobetonnye mosty s mnogoriadnoi svarnoi armaturoi. Moskva, Nauchno-tekhn.izd-vo M-va avtomobil'nogo transp. i shosseinykh dorog RSFSR, 1959. 188 p. (MIRA 12:4)
(Bridges) (Reinforced concrete)

SHILINA, D.I.

Quality of raw sealskins. Kozh. obuv. prom. 5 no.7:9-11 Jl '63. (MIRA 16:8)

1. Glavnyy inzhener Leningradskoy mekhovoy fabriki No. 1.
(Hides and skins—Testing) (Seals(Animals))

SHILINA, D.I.

Continuous conveyor production line for the dressing of peltry. Kozh.-obuv. prom. 7 no. 11:15-16 N '65
(MIRA 19:1)

L 38909-66 EWT(m)/T/EWP(t)/ETI/SWP(k) IJP(c) JD/EW

ACC NR: AP6019769 SOURCE CODE: UR/0370/66/000/003/0125/0129 39 8

AUTHOR: Kishkin, S. T. (Moscow); Glazunov, S. G. (Moscow); Khorev, A. I. (Moscow); Rubin, Yu. L. (Moscow); Shilina, E. M. (Moscow)

ORG: none

TITLE: The use of high-temperature thermomechanical treatment in the manufacture of extruded BT-15 titanium alloy tubes 18 8 27 18

SOURCE: AN SSSR. Izvestiya. Metally, no. 3, 1966, 125-129

TOPIC TAGS: titanium alloy, alloy tube, tube heat treatment, thermomechanical treatment, high temperature treatment, aluminum containing alloy, chromium containing alloy/VT15 alloy

ABSTRACT: Vacuum-arc melted ingots of VT15 titanium-base alloy (2.99—3.05% Al, 10.7—11.1% Cr) were conditioned by machining and extruded into bars 187 mm in diameter. The bars were cut into tube billets which were pierced, conditioned and extruded at 950—1150C into tubes with an outside diameter of 110 mm and a wall thickness of 10 mm. Part of the extruded tubes were air cooled and then subjected to conventional heat treatment (annealing at 800C followed by water quenching); another part was subjected to high temperature thermomechanical treatment (HTMT), i.e., were water quenched immediately after extrusion. Both tube lots were then

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double aged at 450C for 25 or 50 hr and at 560C for 15 min. The tubes which underwent HTMT had considerably better mechanical properties, tensile strength of 136—148 kg/mm^2, elongation of 6—12%, and reduction of area of 12—24% than the conventionally heat treated tubes, tensile strength of 116—132 kg/mm^2, elongation of 1—6% and reduction of area 2—12%. The beneficial effect of HTMT is believed to be associated with improved properties of grain boundaries, the rapid cooling immediately after extrusion prevents the diffusion of impurities to grain boundaries. Also the α-phase particles precipitated during aging in alloy subjected to HTMT are much finer and more uniformly distributed than those in conventionally heat treated alloy. Orig. art. has: 2 figures and 1 table. [DV]

SUB CODE: 13, 11/ SUBM DATE: none

Card 2/2

KUKLIN, G.V.; SMOL'KOV, G.Ya.; SHILINA, G.I.

Observations of the partial lunar eclipse of March 24, 1959, at the Irkutsk Magneto-Ionospheric Station. Astron.tsir. no.208:9-11 Ja '60. (MIRA 13:11)

1. Irkutskaya magnitno-ionosfernaya stantsiya.
(Eclipses, Lunar--1959)

SHILINA, G.P.; TSEYTLIN, S.M.

First find of kimberlites in the Aldan shield. Sov.geol.
2 no.10:132-136 O '59. (MIRA 13:4)

1. Geologicheskiy institut AN SSSR.
(Aldan Plateau--Kimberlite)

SOV/124-58-10-11902

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 10, p 160 (USSR)

AUTHORS: Makogon, M. B., Panin, V. Ye., Konyushina, G. G., Landa, A. L., Sidorova, T. S., Shilina, G. V.

TITLE: Influence of the Strain Conditions During Compression on the State of Copper - Copper-alloy Solid Solutions (Vliyaniye usloviy deformirovaniya pri szhatii na sostoyaniye medi i yeye splavov - tverdykh rastvorov)

PERIODICAL: Izv. vyssh. uchebn. zavedeniy. Fizika, 1957, Nr 1, pp 23-31

ABSTRACT: A comparison is offered of data on the variation in the hardness of strained alloys during anneal with the values of the rate coefficients of said alloys at various strain temperatures.

From the résumé

Card 1/1

DRUZHKOVSKIY, Yu.K.; SHIBINA, O.V.

Polarographic study with a molten mixture of $LiNO_3$ - $NaNO_3$ - KNO_3 as a support under conditions of convective diffusion. Elektrokhimiia 1 no.5:532-537 My '65. (MIRA 18:6)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR i Kiyevskiy tekhnologicheskiy institut pishchevoy promyshlennosti.

SOV/137-58-10-21531

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 10, p 154 (USSR)

AUTHORS: Makogon, M. B., Panin, V. Ye., Sidorova, T. S., Konyushina, G. G., Landa, A. L., Shilina, G. V.

TITLE: The Effect of Conditions of Preliminary Cold Hardening on the Recovery of Cu and its Alloys as a Function of Temperature (Vliyaniye usloviy predvaritel'nogo naklepa na temperaturnuyu zavisimost' vozvrata medi i yeye splavov)

PERIODICAL: Dokl. 7-y Nauchn. konferentsii, posvyashch. 40-letiyu Velikoy Oktyabr'sk. sots. revolyutsii. Nr 2. Tomsk, Tomskiy un-t, 1957, pp 57-58

ABSTRACT: Investigations were performed in order to establish how temperature and rate of deformation (D) (the degree of D remaining constant) affect the progress of recrystallization curves of Cu and its alloys containing 10 atom-% Ni and Al. It was established that the increase in recrystallization temperature of Cu and its alloys is directly proportional to the degree of D; it is therefore assumed that for each temperature of D there is a corresponding field of D distortions, the temperature stability of which increases with increasing temperatures of D. It is

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The Effect of Conditions of Preliminary Cold Hardening (cont.)

pointed out that the temperature stability of the cold-hardening of the Cu-base solid solutions investigated is a function of the nature of the alloy. Compared with Al, the addition of which tends to reduce the strength of cohesive bonds, introduction of Ni increases the cohesive forces in the Cu lattice and results in a greater rate of increase in temperature stability of the work-hardened regions.

Z. F.

1. Copper--Crystallization 2. Copper alloys--Crystallization
3. Copper--Temperature factors 4. Copper alloys--Temperature factors

SHILINA, G.V.

report to be submitted for the IUPAC 21st Conference and 18th Intl. Congress of Pure and Applied Chemistry, Montreal, Canada, 2-12 August 1961

ALIMARIN, I. P., and ZOLOTOV, Yu. A., Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy, Academy of Sciences USSR - "Extraction of metal chelate compounds as affected by the nature of the solvent" (To be presented in Russian) (Section C.2 - 11 Aug 61, morning)

BAGDASAR'YAN, Kh. S., and KRONGAUZ, V. A., Scientific Research Physico-Chemical Institute imeni L. Ya. Karpov, Moscow - "Some aspects of energy transfer in radiation chemistry" (Section A.1, Session II - 7 Aug 61, morning)

DELIMARSKIY, Yu. K., Institute of General and Inorganic Chemistry, Academy of Sciences UkSSR, Kiev - "The kinetics of the electrode processes in the electrolysis of melted salts" (Section B.3 - 10 Aug 61, morning)

DELIMARSKIY, Yu. K., ANDREYEVA, V. N., BOYKA, K. M. (Possibly VOYKA, K. M.), NASARENKO, G. D., and KAPSOVA, T. N., Institute of General and Inorganic Chemistry, Academy of Sciences UkSSR, Kiev - "Electrochemical experiment with melted borate and phosphate" (Section A.3, c, (2), Session I - 11 Aug 61, morning)

DELIMARSKIY, Yu. K., PANCHENKO, I. D., and SHILINA, G. V., Institute of General and Inorganic Chemistry, Academy of Sciences UkSSR, Kiev - "On the convection diffusion in melted salts" (Section B.3 - 9 Aug 61, afternoon)

GERASIMOV, Ya I., Moscow State University imeni M. V. Lomonosov, (Co-Chairman, Section A.3,c,(2), Session I(B), 11 Aug 61, afternoon)

GERASIMOV, Y. I. LAVRENT'YEV, V. I., KUZNETSOV, F. A., and REZUKHINA, T. N., Moscow State University imeni M. V. Lomonosov - "The thermodynamic properties of columbium and cerium oxides" (Section A.3,c,(3), Session II(A), 11 Aug 61, morning)

GOL'DANSKIY, V. I., Institute of Chemical Physics, Academy of Sciences USSR - "Two-proton radioactivity - a new kind of radioactive decay of nuclei" (Section A.4 - 7 Aug 61, morning)

DELIMARSKIY, Yu.K. [Delimars'kyi, Yu.K.], akademik; PANCHENKO, I.D.; SHILINA, G.V. [Shilina, H.V.]

Rotating disk electrode in the polarography of fused salts. Dop. AN URSR no.2:205-208 '61. (MIRA 14:2)

1. Institut obshchey i neorganicheskoy khimii AN USSR. 2. AN USSR (for Delimarskiy).
(Polarography)

SHILINA, G.V.; UL'KO, N.V.

Polarographic study of oxides of zinc, germanium, chromium, molybdenum, and tungsten on a fused borax background. Ukr.khim. zhur. 28 no.2:172-179 '62. (MIRA 15:3)

1. Kiyevskiy gosudarstvennyy universitet im. T.G.Shevchenko.
(Metallic oxides) (Polarography)

PANCHENKO, I.D.; SHILINA, G.V.

Rotating disk electrode in the polarography of fused salts.
Zhur.anal.khim. 18 no.8:920-923 Ag '63. (MIRA 16:12)

1. Institute of General and Inorganic Chemistry, Academy of Sciences, Ukrainian S.S.R., Kiev.

PANCHENKO, I.D.; SHILINA, G.V.

Theory of convective diffusion in the polarography of fused salts. Ukr. khim. zhur. 29 no.11:1164-1169 '63. (MIRA 16:12)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

"Cathodic reduction of halogens in fused salts under conditions of convective diffusion."

report presented at 15th Mtg, Intl Comm of Electrochemical Thermodynamics & Kinetics, London & Cambridge, UK, 21-26 Sep 1964.

Inst of General & Inorganic Chemistry, AS UkSSR, Kiev.

DELIMARSKIY, Yu.K. [Delimars'kyi, IU.K.], akademik; SHILINA, G.V. [Shylina, H.V.]

Polarographic study using a molten mixture of $LiNO_3$ - KNO_3 - $NaNO_3$ as the support under conditions of convective diffusion. Dop. AN URSR no. 6:770-773 '64. (MIRA 17:9)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.
2. AN UkrSSR (for Delimarskiy).

SHILINA, G.V.; DELIMARSKIY, Yu.K.

Polarographic study of alkali metal chlorides with fused eutectic of $LiNO_3$ - $NaNO_3$ - KNO_3 as the support. Ukr. khim. zhur. 30 no.10: 1045-1051 '64. (MIRA 17:11)

1. Kiyevskiy tekhnologicheskiy institut pishchevoy promyshlennosti.